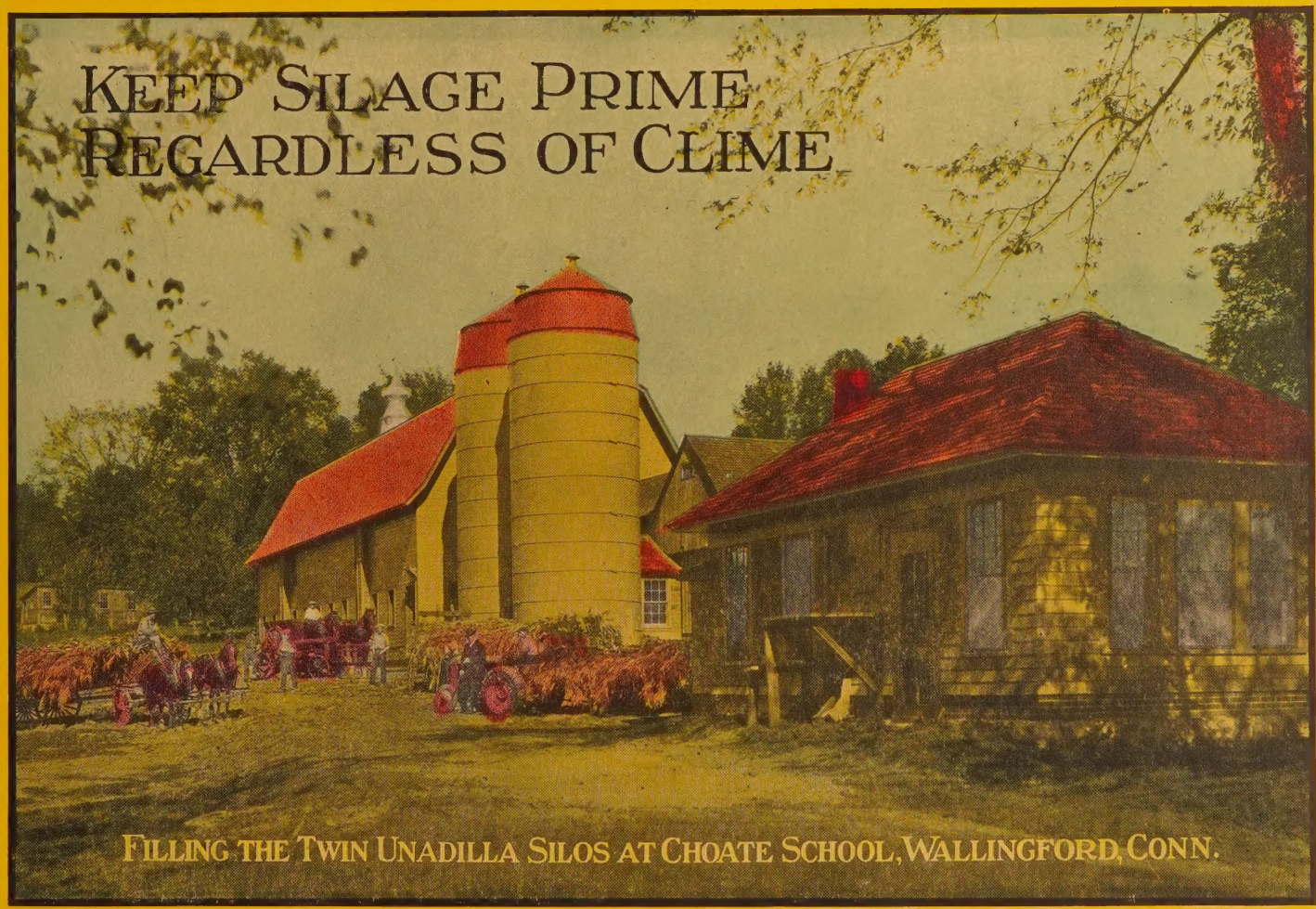
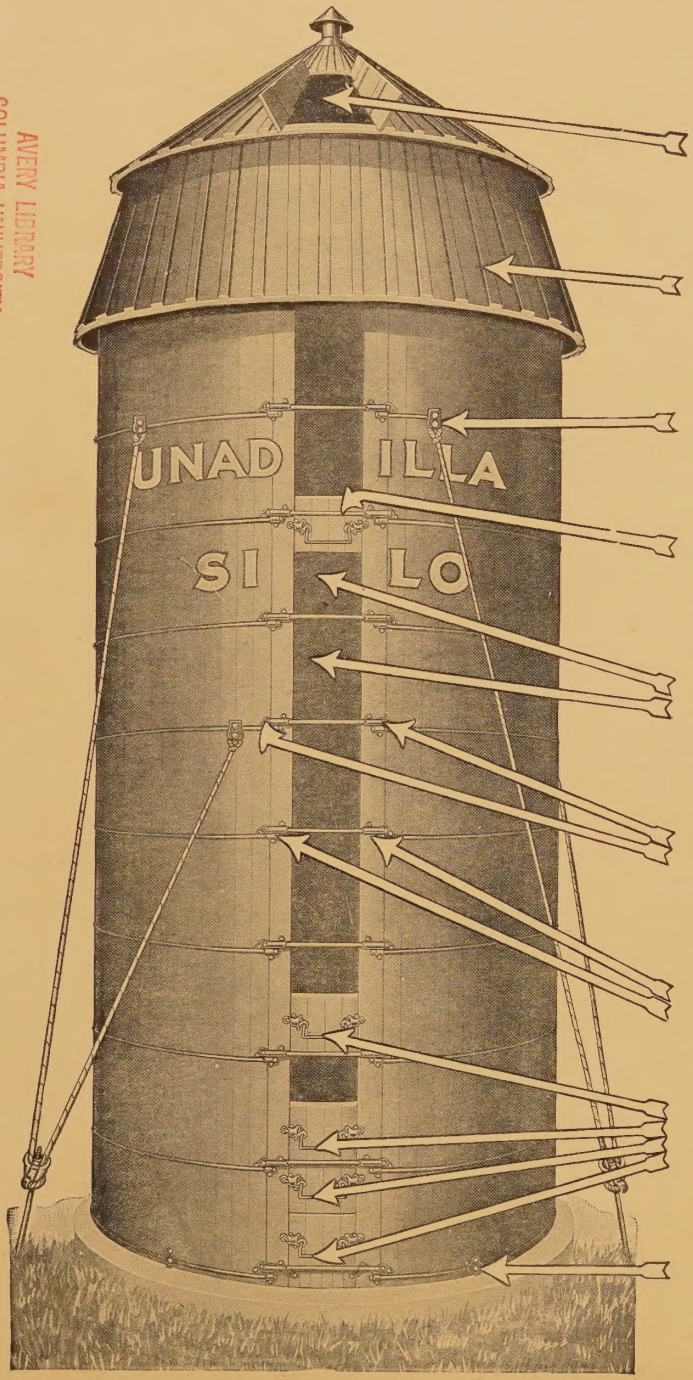
UNADILLA SILOS



FILLING THE TWIN UNADILLA SILOS AT CHOATE SCHOOL, WALLINGFORD, CONN.

Here Are the Dominant Features of Unadilla Silo Construction

AVERY LIBRARY
COLUMBIA UNIVERSITY



The Roof, whether Conical of Gambrel in form, is made of a durable, weather-resisting variety of lumber, capped with galvanized iron ventilator and provided with double-hinged doors for filling the Silo.

This part of gambrel roof provides ample working space to permit of ensilage being firmly tramped to top of staves, besides affording storage for several tons blown in through filling opening above. The result—a Silo full of silage after settling has occurred.

Steel cable anchors, connecting with top and middle hoops through equalizing saddles attached to the ground rods, safeguard the Silo during wind storms.

Fasteners being wholly on the doors permit of their being locked in the frame at any point; easily shoved up out of the way at feeding time and as easily lowered to close the opening at ensilage level.

Door opening is 22 inches wide, continuous and unobstructed, enabling operator to raise each successive door above the feed level and shove the ensilage from Silo. No tiresome pitching of feed up two or more feet to clear high doors and cross-braces.

Door frame is adjustable. A few turns of nuts on ends of tie-rods gives a narrower or wider opening as desired, overcomes the nuisance of doors that bind and insures permanent air-tightness throughout the door system.

Every hoop can be taken up as much as 12 inches at the door front, all adjusting nuts being close to a man or boy working from the door fastener ladder. No dangerous, slide-slipping, separate ladder required. The work done in a jiffy under protection of the chute connection.

Door fasteners make an ever-ready, handy, substantial and safe ladder the entire height of the front. Rounds are 15½ inches apart, stand out 5 inches from the doors and are 13 ins. wide. Easy to climb—up or down.

Four adjustable base anchors of steel cable, embedded in the concrete, hold the Unadilla immovable on its foundation.

☞Unadilla Silo Construction is Protected by Patents 939,355, 965,951 and 653,967. Other Patents Pending.

UNADILLA SILO CO., INC., UNADILLA, N. Y.

Although our factory is in continuous operation, there are distinct advantages gained by ordering early for immediate shipment

LEADERSHIP Because of SERVICE and ACHIEVEMENT

There's a law of compensation at work in the affairs of men. As cream rises to the top, so merit deserves and attains success. Leadership doesn't come by chance, nor can it be forced for any length of time. It is always earned by service and achievement.

The Unadilla Silo Company is today the largest manufacturer of Silos in the East, where more Unadilla Silos are purchased each season than of any two other types of Silos.

Demand for and distribution of the Unadilla is not, however, confined to just a particular section of the United States. The fact is of interest that progressive farmers in thirty-nine States of the Union are users of Unadilla Silos. Modernized farms of Europe are also equipping with Unadillas.

But the most conclusive evidence of superior merit of Unadilla Silos is submitted by the many who after buying the first Unadilla and gaining intimacy with its excellent qualities, install the second, and then the third or greater number, as the need requires, and by those who having tried other types ultimately install the better-built Unadilla.

In our other lines of manufacture, namely: Water Tubs, Milk Cooling Vats, Upright Tanks, Coal Pockets, Stable Floor Blocks, steadily increasing sales best testify to their correct construction, durability and practical worth.

The pages that follow, by facts and pictures of installations, tell why the Unadilla Silo Company's products deserve this unquestioned leadership; why, in the particular instance of the Unadilla Silo, it always proves a dependable aid in the profitable management of any stock or dairy farm, and pays for itself, in short order, by lowering production costs and increasing net revenues.

FAUVIC FARM AT WILTON, CONN.,
OWNED BY A. V. BARNES, VICE PRESIDENT OF THE AMERICAN BOOK COMPANY, USES A UNADILLA SILO TO PROVIDE WINTER SUCCULENCE FOR THE DAIRY HERD.

QUITE OFTEN ITS A CASE OF TWINS OR TRIPLETS

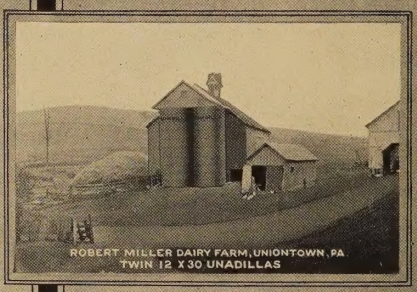
THE A. G. DEWEY CO. FARM, DEWEYS MILLS, VT.
TWIN 14 X 30 SPRUCE UNADILLAS

THE CLARENCE N. ROBINSON FARM, CANAJOHARIE, N.Y.
TWIN 14 X 24 OREGON FIR UNADILLAS

R. I. PILE, OWNER IXL CREAMERY, FRIEDENS, PA.
TWIN OREGON FIR UNADILLAS

THE W. T. PAYNE FARM, EAST DALLAS, PA.
TWIN 12 X 36 UNADILLA SILOS

DAVID S. PECK & SONS DAIRY AND TRUCK FARM,
SEEKONK, MASS.
A TRIPLET BATTERY OF UNADILLAS



ROBERT MILLER DAIRY FARM, UNIONTOWN, PA.
TWIN 12 X 30 UNADILLAS

A. H. FULLER FARM, GASSETTS, VT.
TWIN 12 X 20 OREGON FIR UNADILLAS

SPENCER ACRES DAIRY FARM, COXSACKIE, N.Y.
TWIN 14 X 28 OREGON FIR UNADILLAS

DAIRY FARM OF JOHN GRAHAM, BARRINGTON, R. I.
TWIN 14 X 28 SPRUCE UNADILLAS

Paramount Thoughts to Have in Mind When Deciding the Silo Purchase

There are three great prime essentials in correct Silo construction—(1) ability to cure and preserve silage perfectly; (2) durability, and (3) convenience—that the dairyman or stockman, who is determined to get his money's full worth, will look for in the Silo of his choice.

And to be influenced by any minor, temporary or personal consideration, in the purchase of a Silo that does not surely possess all three of these all-important essentials, is quite certain to entail disappointment, dissatisfaction and useless drudgery.

The numerous photographs and testimonial letters appearing in this catalogue constitute the most logical and substantial evidence of the uniformly high degree of satisfaction that UNADILLA SILOS invariably give their owners. We commend to your earnest consideration the high type of individuals, firms and institutions making the statements that confirm all that we maintain (and more) for UNADILLA SILOS relative to materials, methods and construction features that fulfill the three great essentials that have been mentioned.

You will find it profitable to study these pages on which we illustrate methods and features of construction inasmuch as they plainly indicate just what to look for in purchasing your Silo, and show in a graphic way details for durability, strength, air-tightness and convenience that many years of experience and devotion to one line of endeavor have perfected. We feel that after you study these details, your own good judgment will prompt you to equip with a Unadilla—the Silo that fully satisfies.

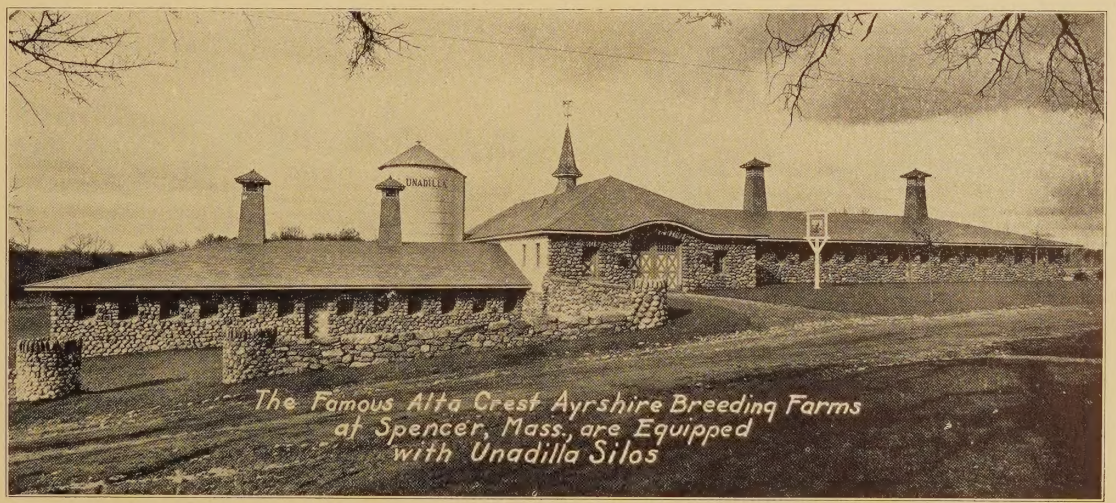
Elsewhere we briefly discuss why the Wood Stave Silo preserves silage better than Silos built of any other material and how constructed to make it the easiest and cheapest of all Silos to set up.

Your attention is now invited to what is, in these times, a most important consideration—

The Unexampled Convenience of the Unadilla Silo

Few farm implements or machines, very few pieces of necessary equipment for a dairyman or stockman are called upon to serve as long, are used as frequently or for so long a period each year, as the Silo.

The Silo is in use twice each day for a period of six months to a year, depending upon conditions and methods of feeding. Twice a day for that period silage must be forked to the stable level. From 365 to



An 18x36 and Two 14x30 Unadilla Silos Supply the 250 Alta Crest Ayrshires with Wholesome Silage

Gentlemen:—The three Silos purchased from you have proved very satisfactory. The ensilage keeps well and we find your patent doors very convenient. The lumber used in the staves is of good quality, strong and durable. I am sending you a photograph of one of my barns showing the 200 ton capacity (18x36) Unadilla Silo. Yours truly, ARTHUR H. SAGENDORPH, Owner Alta Crest Farms, Spencer, Mass.

730 times a season you or your men or boys must climb the Silo, enter it, come out again and safely descend to the ground level.

Tons of silage must be handled by hand. Thirty to fifty pounds per head per day—a real task, a time-consuming one, even under the most favorable conditions.

The Unadilla Silo is, as far as we know, the only Silo that adequately provides for the safety, convenience and reduction of the labor of handling silage to a simple and easy job.

There is no danger attending the climbing or descending of the Unadilla Silo. It is made easy, safe and inviting for man, boy, woman or girl. There is no call for the erection of a special ladder at side of door opening, making a sidewise, precarious entrance to and exit from the Silo. Remember the Silo is there to be used and it must be safe!

In the Unadilla Silo each door fastener is a unit of a perfect, easy, substantial, ever-ready ladder, correctly located up the middle of the door front. The rungs of this ladder, 13 inches wide and 5 inches out from the doors, provide a safe and convenient hold for hand and foot. Entrance into an exit from the Unadilla is made almost as simple as going up or down an easy flight of stairs.

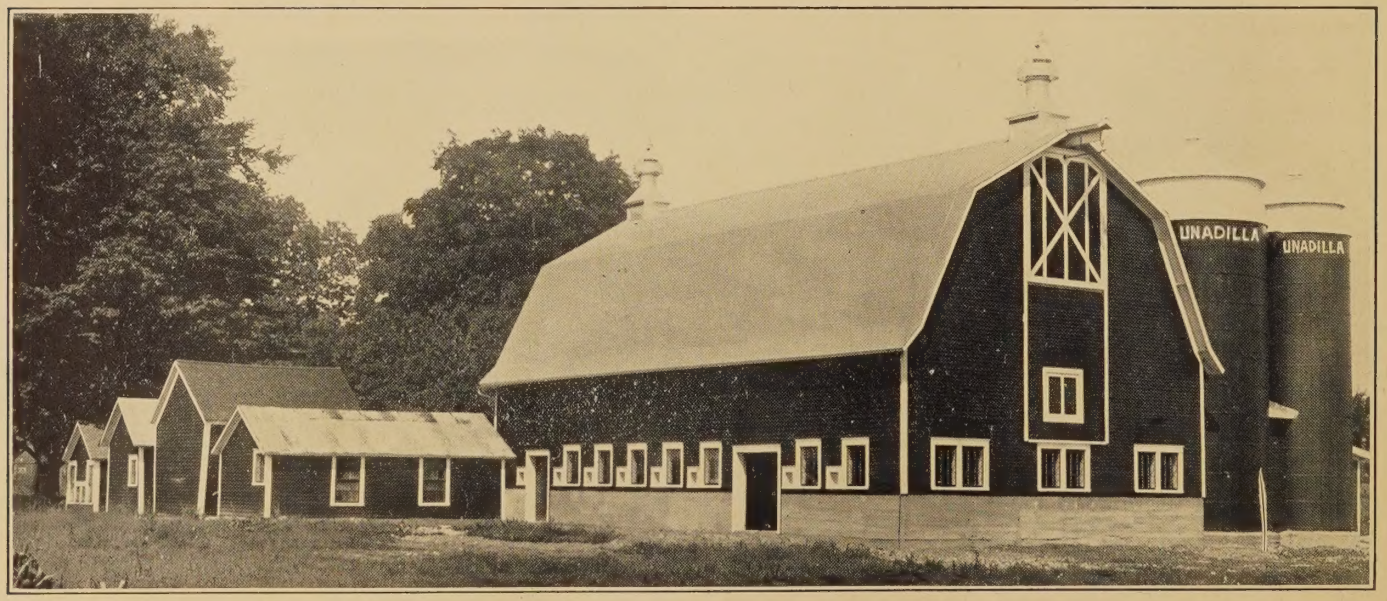
These door fasteners when down keep the Silo front hermetically sealed; when raised the door may be pushed in by a slight pressure, shoved up and fastened out of the way.

Here is the system that makes silage forking merely silage dumping at a door level. Those who are familiar with Silos that haven't this exclusive feature know how the doors stick or freeze in so tight that nothing short of a sledge and total destruction of the door will effect its removal. What happens under such conditions?

Unable to remove the doors except they smash them in, your man or boy must fall into the Silo to the silage level and then risk personal safety to effect an exit and negotiate the ladder.

And what happens when it comes to silage removal?

Under such conditions, when one or more doors are "stuck" or



As companion equipment for his modern dairy barn, Lester M. Cooper, Cortland, N. Y., installed a 10x30 Unadilla for summer use and a 14x30 for winter feeding—an ideal arrangement

"frozen in," the silage must be forked up several feet and often overhead. The easiest way (especially when the feeder is in a hurry, or cold and working by dim lantern light) is to begin nearest the door front to pitch the silage. A deep hole is dug. Too much silage is exposed and spoilage begins. If the silage is not wasted it is fed to the detriment of the health of the herd. More fault is to be found here than is often suspected.

For labor on the farm is a serious problem of the day. Farm labor is inferior to what it was. It demands more of conveniences and is impatient with difficulties. The farmer must leave nothing to chance or take nothing for granted.

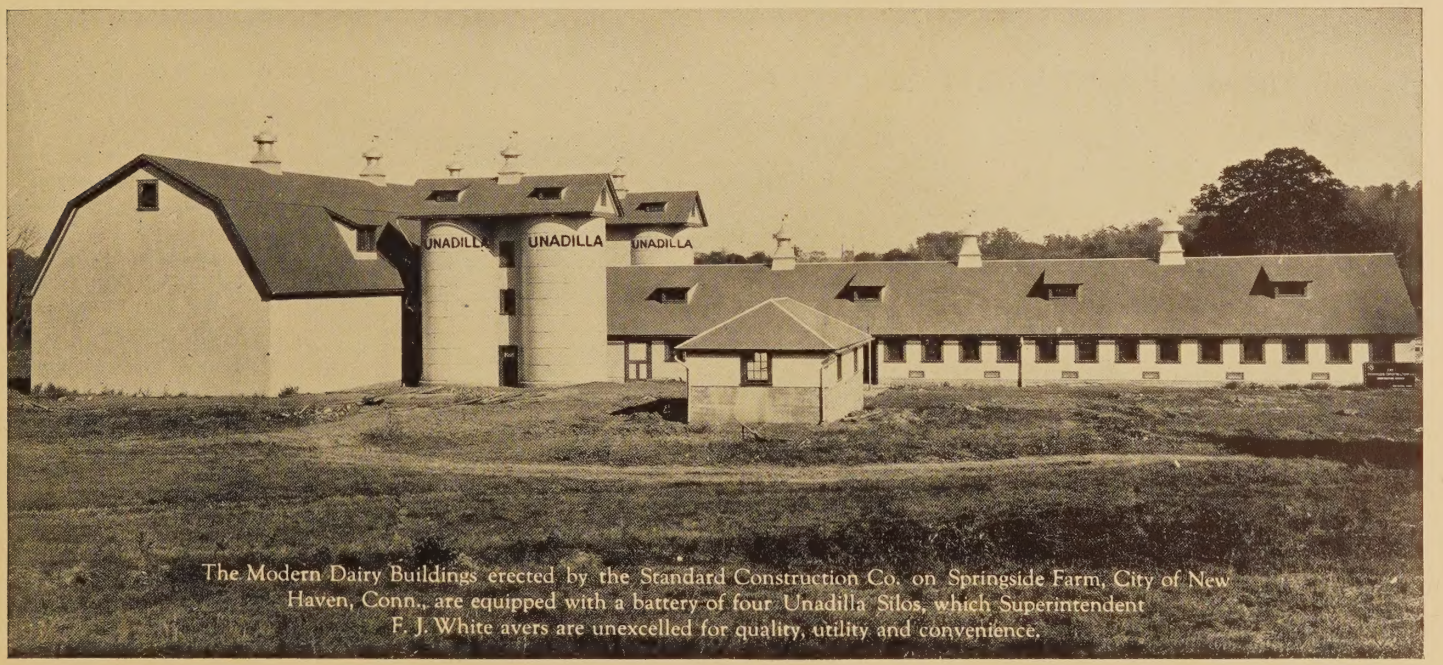
The Unadilla easy-moving, yet air-tight doors make even silage removal inviting. To do otherwise is inexcusable and can be easily corrected. It assures every ounce of silage being good and palatable, productive of high grade milk and meat.

These are conveniences that lighten the labor which is daily and aid in keeping the help contented; but there are even others, right along this famous Unadilla ladder, namely:

After the Silo has been emptied and is drying out its hoops should be tightened. Timely attention in this respect, especially when the Silo is new, will prolong its life indefinitely.

But if a long, shaky, dangerous ladder (often unavailable on the average farm) must be sought, tied and steadied by one man while another gingerly goes up it; if this same ladder must be moved around the Silo to reach the score or more adjusting lugs, the job will more often go undone to the danger and detriment of the Silo and its contents the next season.

Nothing like this in the Unadilla. Every hoop on the Silo can be taken up as much as 12 inches at the front, under cover, the nuts being close by to a man standing on the door fastener ladder. The job is inviting and convenient. One man does it in a jiffy!



The Modern Dairy Buildings erected by the Standard Construction Co. on Springside Farm, City of New Haven, Conn., are equipped with a battery of four Unadilla Silos, which Superintendent F. J. White avers are unexcelled for quality, utility and convenience.

Likewise the door front is adjustable. A man with a wrench standing on the door fastener ladder can widen or close the opening so that the doors and frame are always in perfect, air-tight contact.

Thus the Unadilla door fastener ladder serves both for convenience and for protecting your Silo and silage investment against deterioration.

Many are the makeshift ladders, clumsy, narrow and inconvenient. They gather silage which sticks and freezes; they form an insecure, dangerous contrivance with treads so far apart that one must acquire monkey-like agility to climb them in safety.

If our representations seem over-emphasized, climb up a Unadilla in your vicinity (there are Unadillas almost everywhere) and then try the same thing on any other type of Silo. When you've made that comparison, remember that a Unadilla Silo is made to last at least twenty years, when cared for as it should be, and to have the use of its time and labor-saving conveniences for so long a period is to gain what is most worth while in a Silo.

Silage Cures Best in a Round Silo Built of Wood

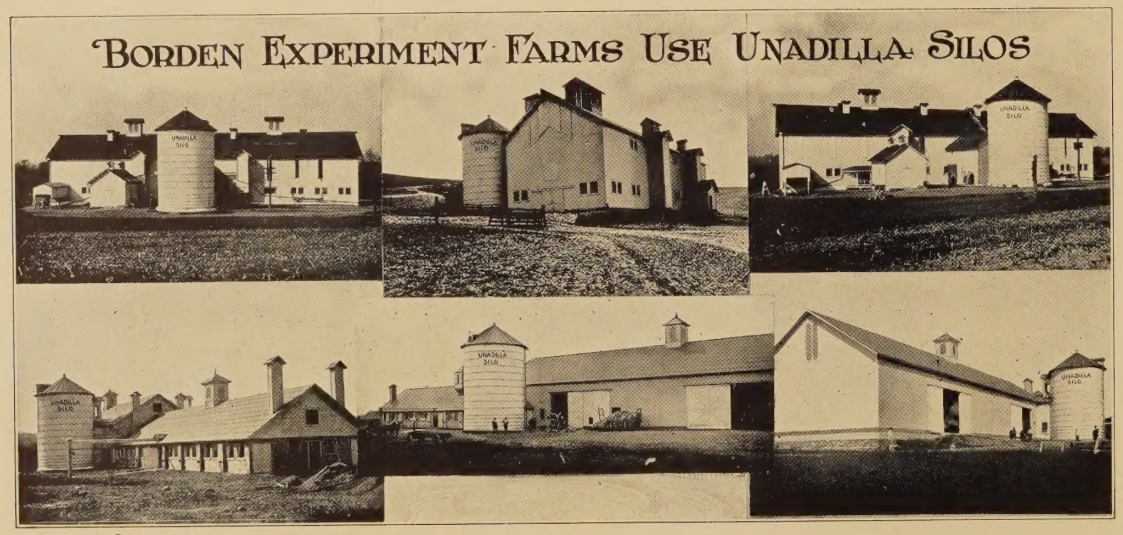
Since the primary object of a Silo is to cure and preserve whatever chopped green feed—corn, soy beans, cow peas, soiling crops, et cetera—is intrusted to its keeping, it is important to know that best results can only be obtained in a Silo possessing these characteristics: it must be round, with straight, smooth, rigid, air-tight walls, else the feed will not settle compactly or cure properly; it must be strongly hooped to afford security; have adequate ventilation, and be built of material least affected by cold, heat and moisture.

The Unadilla Silo has all these essentials and being built of wood, nature's best non-conductor of heat and cold, the heating and fermenting processes are not interrupted or arrested and prime, palatable silage is a sure result.

There is positively nothing better than wood of which to build the Silo, regardless of the claims made by some, usually the manufacturers, that tile, cement, stone, brick or iron will prove equally as efficient as wood in Silo construction and last longer.

Experiments have been made to get at the truth of such claims and it has been demonstrated that masonry products and iron conduct heat and cold seventeen times faster than wood. This means that a 2-inch wall of wood will retard the induction of outside cold against the contents of a Silo, or the radiation of inside heat, equally as well as a 34-inch wall of masonry. And, as you know, masonry Silos are usually but eight inches thick.

This is one reason why a considerable quantity of silage spoils next to the cold, porous walls of masonry



Immediately the Borden Condensed Milk Company became convinced, back in 1911, that ensilage was beneficial to dairy cows and increased milk production in seasons when green feed, other than silage, was not available, they not only recommended Silos to their patrons but equipped their four Experimental Farms at Earlville, Edmeston, Walkill and Chatham, N. Y., with the large Unadilla Silos here shown. Other Borden farms have since been similarly equipped with Unadilla Silos.

Silos and explains the excessive freezing of their contents when the mercury drops to a low degree of temperature.

Then, again, while the two principal silage acids, acetic and lactic, are wood preservatives, they attack the alkaline cement and mortar joints of masonry Silos, causing their disintegration, in addition to which the proneness of such Silos to burst under pressure of the settling silage, or crack under frost action, leaves their durability questionable. Certain it is that there is ample proof that masonry Silos are not indestructible. Nor are they fire-proof as has been claimed for them.

Just remember that more than 90% of all the Silos in use are built of wood, that thousands have been in constant service for fifteen to twenty-five years and have always provided a feed both nourishing and readily converted into milk and meat. Real proof that especially in Silo construction good, sound wood of right variety can be depended upon to make good—year after year for years.

Selected Tank Lumber and Accurate Mill Work Establishes Durability

Of all our native woods none have proved more durable in water tanks, acid vats, flumes and situations of excessive dampness, over long periods of use, than Spruce and Oregon Fir.

Possessing uncommon flexibility they are unexcelled for use in the Silo, a structure which for part of the year is filled with a sodden mass of green feed and then, usually in the summer, stands empty and drying out. That's why the Unadilla Silo is built of these two woods, making it second to none in durability and justifying the purchaser to expect and receive the utmost in satisfactory service for a generation or longer.

The good qualities of Spruce are too well known to require further comment than that it is a close-grained, sound-knotted stock and makes a staunch, trustworthy, fine appearing Silo at minimum cost.

Oregon Fir is a native of the Pacific Coast, has the strength of oak, is close-grained, exceptionally free from knots, and so heavily impregnated with a natural preservative gum as to make it quite the equal of cypress in its decay-resisting properties. A Unadilla made of Oregon Fir is ultra-fine and certain to give the best of satisfaction.

Our annual lumber requirements are so great that we command the select output of the largest and most reputable mills operating in the virgin forests of this country and Canada. From the moment this lumber enters our yards in the rough (months in advance of our needs to permit of proper seasoning) until it is passed for shipment as finished Silos, it is under the constant surveillance of our own experts, who are charged to reject all material that fails to measure up to the high standard of quality invariably found in the Unadilla Silo.

And the same painstaking care is manifest in Unadilla mill work,

THE GUERNSEY DAIRY FARM ATTACHED TO THE FAMOUS LOOMIS TUBERCULOSIS SANATORIUM AT LIBERTY, N.Y., IS EQUIPPED WITH TWO LARGE UNADILLA SILOS.

our manufacturing plant being equipped for quantity production with the most modern machinery, propelled by electricity and in charge of experts skilled, by long service, in the methods necessary to create a Silo of faultless construction and unsurpassed durability.

All staves are planed both sides to a uniform thickness, machined with a heavy tongue and deep groove and accurately beveled to conform to the exact circle of each made-to-order Unadilla. Passing over an automatic trimmer the material is, at one operation, cut to the exact length required and accurately kerfed at both ends for the metal splines.

Now note the results—no mis-fits in materials; staves of the same length and width are interchangeable—they do not have to be numbered to insure proper location in the Silo; they slip into place easily and the work of setting up a Unadilla is quickly accomplished by the men or boys on the farm. No special or skilled hired help is required; no bill of extra costs.

Are the foregoing assertions true? Substantiating proof will be found in the unsolicited testimonial letters from satisfied Unadilla users appearing on pages 22 to 28. Please read them.

The preceding pages have dealt specifically with the actual merits and conveniences of the regular type of Unadilla Silos, or the type that has been most generally purchased in the past, as do the succeeding pages with their illustrations and explanations of parts that compose the dominant features of regular Unadilla construction.

But on pages 18 and 19 are illustrated and described two extra equipments, the Perfected Trussed Top and Stave Dowelling system, which when applied to the regular Unadilla Silo (and they cannot be applied to any other make of Silo without infringing our patents) give super-strength to the structure and make it as immune to damage from high winds or neglect as human ingenuity has yet evolved.

Read the two pages mentioned with particular care; sense the greater security value that the extra equipment would give to your Silo purchase, and while pondering their purposes remember that their use is restricted to the Unadilla Silo only.

MANY OF THE NOTABLE PUREBRED HERDS OF NEW JERSEY ARE RATIONED FROM UNADILLA SILOS.

BLOSSOM HILL DAIRY FARM
THE VALUABLE PROPERTY OF M. J. SHERIDAN, JR. AT LEBANON, N.J.
MAKES USE OF THREE 12 X 30 OREGON FIR UNADILLA SILOS

THE ESSEX COUNTY HOSPITAL AT CEDAR GROVE, N. J.
USES A BIG 18 X 36 UNADILLA SILO IN THE PROPER FEEDING
OF THE 135 STATE PRIZE WINNING PUREBRED HOLSTEINS.

Unadilla Door Opening is Continuous, Unobstructed by Cross-Braces and a Real Labor-Saver

The provision of a continuous opening in the Unadilla Silo front, an acknowledged prerequisite of ideal construction, plus the use of short doors which, due to their passage up and down the frame not being obstructed by cross-braces, always open exactly at the feeding level, accomplishes a great saving in time and labor worthy of thoughtful contemplation and consideration.

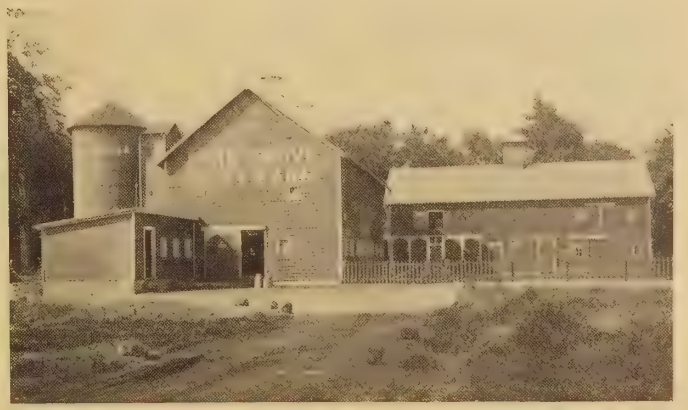
Unadilla Doors do not set so deep in silage but that, singly, they, can be easily raised. This enables the attendant to shove the feed out through the opening, instead of laboriously hand-forking it up over high doors and obstructing cross-braces as in other Silos. When feeding begins top door is removed and hung inside the Silo. When silage is down to top of second door it is raised to occupy vacant space above.

The Unadilla Door Frame is Adjustable in Width

The Unadilla Door Front, as illustrated on this page, has incorporated in its construction a decidedly practical feature—that of adjustability—by which the frame, on either side of the continuous opening, can be altered independently of the hoop adjustments, and, conversely, any or all of the hoops can be tightened without changing the width of the door frame.

This advantage, as will be noted, is gained in the Unadilla Silo by supplanting the old-fashioned, rabbitted-in cross-braces, which are absolutely non-adjustable, with heavy steel tie-rods, which span the door opening to enter upper barrel of patented malleable iron lugs, bolted to outside face of the frame jambs with two $\frac{1}{2}$x2$\frac{1}{2}$ in. bolts. These lugs overlap the staves adjoining frame on either side, to which they are securely clout-nailed. The lower barrel of each lug carries one end of a hoop encircling the Silo to opposite lug. Fitted to ends of the steel tie-rods are hexagon nuts, seated in a socket. By tightening these nuts the frame is drawn together, and by backing them against an auxiliary shoulder on the lugs the frame is spread apart.

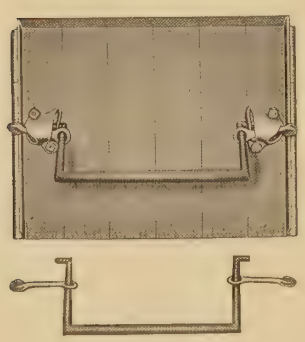
The importance of having the frame capable of adjustment is best demonstrated by the fact that after a Unadilla Silo has been filled and used for a period of years all parts of the door system can be quickly made to fit with the same exactness, and positive exclusion of air, as when the Silo was first put up. It is a feature which insures the silage being properly cured and kept in prime condition until fed out.



Pine Grove Dairy Farm, located near Duanesburg, N. Y., operates a Unadilla Silo

Unadilla Door Fastener Serves Two Useful Purposes

The Unadilla Door Fastener is a dual purpose device, cleverly designed to serve both as a lock and a ladder. Marvelously simple in principle, yet positive in action, it is so easily manipulated that a mere child can operate it. Never fails to lock each door so snugly in the frame that, in all reality, hermetic sealing is obtained.

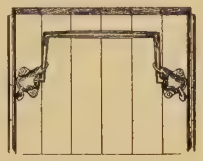


Each fastener set consists of a one-piece round steel lever, fashioned to the form of a handle or ladder rung, attached to which are two short gripper levers that play freely up and down in double-slotted cams which are securely bolted (not screwed) to face of door.

Just an upward lift on the handle suffices to draw the short levers inward and release the door, while a downward pull projects them out over jambs of frame into locking position. The rounded presser-foot points of the short levers serve to grip the frame and at same time draw the door downward to firmly interlock with door below, outward and tight against the frame.

The simplicity and perfection of the Unadilla fastener can be best understood and appreciated by this statement of fact—that to manipulate it engages but one hand, making it convenient for a person to sling a door by its handle on either forearm, thereby leaving both hands free to climb the ladder made by the door fasteners, and fasten the doors in frame instantly and in safety.

The fastener is located on the door, does not come in connection with any plate, catch or other device on the jambs, hence should the doors ever shrink one is never put to the trouble and expense of relocating the fasteners, as must be done, in time, with doors that have a part of their locking device attached to the jambs.



Handle Raised and Fasteners Drawn Back

Handle Lowered Fastening Door and Forming Ladder

Unadilla fasteners permit of the doors being instantly raised and fastened at any desired point in the frame, facilitating the removal of ensilage with least exertion or time at the work. The doors are designed to be left in the frame, shoved up in succession as the feed level lowers, which materially strengthens the Silo, in addition to keeping out the frost, wind, rain and snow, and at refilling time they are at hand to be quickly lowered in place. No searching the premises for missing doors in the fall, nor the strenuous task of climbing up and down the Silo front many times to replace them.

THE DAIRY FARM OF JOHN LEAGUE NEAR WILMINGTON DEL. SHOWING THE WELL PROPORTIONED UNADILLA SILO USED.

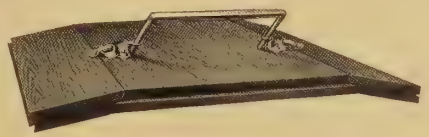
The Doors and Frame are Trouble-Proof, Exceptionally Strong and of Unequaled Convenience

Unadilla Doors win the instant favor and approbation of every Unadilla Silo owner and user. They are painstakingly made of such species of wood as will be least affected by the moist feed packed against them and by reason of the construction principles applied, as hereinafter related, they retain their original dimensions, are non-binding, non-warping, positively air-tight, light to handle, exceptionally strong and durable—everything that is required or desired in a serviceable Silo door.

Each door is built up of two layers of 1 inch matched material of narrow width, dressed two sides, and joined with the grain of one layer applied transversely to the grain of the other, after which they are machined on a jointer, the process making them perfect-fitting and interchangeable when all are of the same height.

By having the grain of the inside layer run across the door opening, Unadilla doors cannot bind in the frame, simply because of the fact that wood does not swell lengthwise. Moreover they are doubly air-tight; stronger than two inch material cleated together, and their construction effectually counteracts the expanding and warping influences of the silage juices. The bottom of each door has a Λ-shaped joint which fits over the wedge-shaped top of the door below, thereby providing an interlocking feature which renders it simply impossible for any pressure exerted by the settling ensilage to push one door out of alignment with the others.

Side edges of doors have a smooth ogee to fit a corresponding ogee on the door frame. The provision of a reverse curve bearing surface between the frame and doors, accepted as being the most practical joint that can be employed, not only avoids the objectionable square shoulders or corners found on doors of the refrigerator and closing-bar types, but does away with the abominable nuisance of using strips of felt or rubber gaskets along the edges to obtain air-tightness. With no crevices permitting silage juice to collect in and freeze, Unadilla doors do not have to be battered up with a sledge or smashed in to release them. Just a fist tap does the work.



Illustrating the non-binding, curved bearing surface which the O. G. joint provides between the door front and doors

The doors measure 22 ins. wide by either 15½ or 16 ins. high, the height furnished being determined by the height of Silo purchased, with allowance for two doors between each hoop. Their weight is only 12 pounds, which makes them easy to handle.

The door frame jambs are made of 8-inch material of the same thickness as staves of Silo, connected at top and bottom with solid header and base pieces. Two edges carry a tongue and groove respectively to unite with adjoining staves. The door opening edges have the same O. G. form as the edges of doors. With the latter in position a perfectly smooth interior surface is presented, with no channels or pockets to harbor air and cause the silage to spoil.

By referring to the illustration of the Unadilla door front shown on page 9, a good understanding may be gained of those features which make for rigidity of construction in the frame. It will be observed that bolted to the frame at regular intervals are patented lugs in pairs, the upper barrel of which carries the heavy steel adjusting tie-rod spanning the door opening, while the lower barrel receives one end of a hoop encircling the Silo to opposite lug. Through these connections, one pulling against the other, it is simply impossible for the frame to buckle or twist out of shape, and its inherent strength adds materially to the stability of the structure.

Inside view of frame showing a smooth surface when doors are in place

The Unadilla front is completely assembled at the factory and received by purchaser ready to be set in position. No holes to bore; no metal fixtures to attach; all such work, worry and expense eliminated.

The Unadilla Ladder is Perfectly Easy to Climb

Twice up and down the Silo every day during the winter feeding season, seven hundred and twenty climbs at the least calculation, makes the need of a safe means of ascent and descent a matter of vital importance and worthy of the most serious thought.

The Unadilla Silo ladder is formed by the door fasteners and located most conveniently, up the middle of the front, directly under the door opening. The rounds are 15½ inches apart, providing an easy, natural step; they stand out about 5 inches from the face of the doors and are 13 inches wide. It is a real ladder, one which a cripple, or the man along in years, or even a woman (see the trio of Vassar College Farm Unit ladies up the Unadilla ladder on this page) can mount with ease and safety—positively no slipping sideways—due to the secure hand and foot hold which the shape of the rounds afford.

Just contrast the "safety first" principles of the practical Unadilla ladder with the Silo whose ladder simply consists of flat projecting braces, or curved iron girders, located two feet or further apart up the front. Their flat, square-edged surface does not afford a reliable grasp for the hands. The shelf-like braces and girders daily collect particles of silage and eventually become slippery under foot, while the danger of a fall, from side-slipping—positively nothing at all to prevent the occurrence—is ever present.

The Unadilla is used on the Wilcox Farm at Nineveh Junction, N. Y.

Battery of two 12x26 Unadilla Silos on the F. D. Dudley farm, North Branford, Conn.

Equally hazardous and inconvenient is the use of a separate ladder located off to one side of the door opening, for upon gaining the feeding level one is obliged to grasp edge of frame and swing from ladder through the door opening and into the Silo. With the ensilage down from the door two or more feet, as is often true where doors are boxed in frame and twice the height of Unadilla doors, the task of entering the Silo may well be dreaded.

Not so with the Unadilla, whose trusty ladder gives a firm foot hold, not just a toe-hold, and is admittedly the strongest, safest and most convenient of any in Silo use.

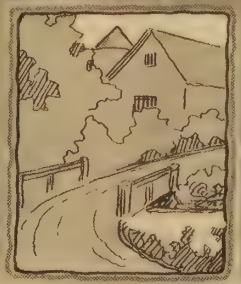
Hoops are Quickly Tightened from Door Front Ladder

Due to the unique construction of the door front, where, by the use of patented lugs, all hoops start and end, you can take up every hoop on the Unadilla Silo twelve inches at the front, where adjusting nuts are handy by to a man or boy working from the rounds of the door fastener ladder.

The lack of this ingenious, as well as labor-saving, arrangement on other Silos requires that to tighten their hoops, at the different lugs around the Silo, a long ladder must be procured and set up against a curved surface, exciting a dread that too often results in their neglect and the Silo's collapse when assailed by stiff gales.

The Unadilla method, however, makes such easy and brief work of hoop tightening that the owner is disposed to make opportune use of his wrench and keep the Silo in perfect condition.

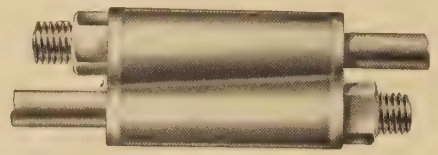
The Good Judgment of Thrifty Penn State Farmers is here evidenced.



Comparative tests have proven that stock receiving silage are more vigorous and healthy than when kept on dry rations

Hoops and Lugs Used on the Unadilla are Extra Strong

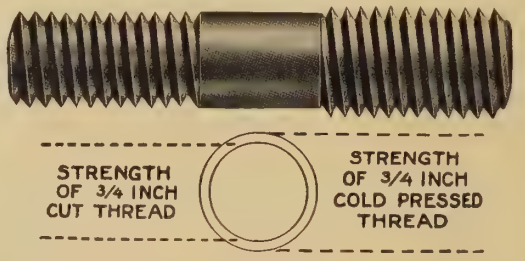
Unadilla Hoops are made of round, soft steel, they are bent to conform to curve of the Silo, and possess unusual tensile strength. Two sizes are used—$\frac{3}{4}$ in. threads at bottom of Silo, where lateral pressure of the ensilage is the greatest, and $\frac{5}{8}$ in. threads from thence up. Each hoop section has a 6 in. cold-pressed thread on either end, fitted with hexagon nuts.



The lugs used to connect the hoop sections are of the closed top pattern, as here illustrated, and will carry any amount of strain without buckling. They are made of the best malleable iron and are so designed that hoops hug staves snugly at point of entrance, while at exit point they are raised sufficiently to permit the hexagon nuts to run freely on the threads.

Cold Pressed Threads Greatly Increase Hoop Strength

By using cold-pressed threads on all Unadilla hoops their strength is made one-fourth greater in the lugs, where most needed, than hoops having cut threads. To illustrate this truth, a $\frac{3}{4}$ in. hoop is run around a Silo and in the lugs, where the principal strain comes, is where the thread is cut on the hoop, the metal cut away in the process weakening its tensile strength to that of a $\frac{5}{8}$ in. hoop having cold-pressed threads.



The over-size of the cold-pressed threads is a guaranty against their stripping as easily as will cut threads under equal conditions and the Unadilla is equipped with these super-hoops for the identical reason that structural engineers specify them in bridge building—to gain the greater strength which the above illustration proves is really obtained.

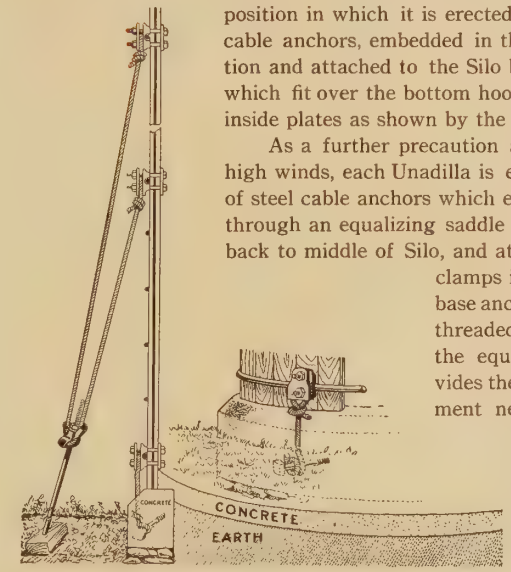
One of the two Unadilla Silos in use at Lorenzo Stock Farm, Cazenovia, N. Y.

Staves are Staunchly Joined with Steel Splines

Continuous length, one-piece staves have proven impracticable in Silo use, mainly because they are rarely sound over all their length. This is especially true of lumber of the present. In Unadilla construction the use of pieced staves, with all weak or defective parts cut out, not only permits of furnishing uniformly first-class material, but they are less apt to warp or twist out of shape than a continuous length stave and are therefore much easier to handle when being set up in position, while the Unadilla method of joining the staves with steel splines of ample width and thickness results in making the Silo walls as rigid, strong and tight end-jointed as could be desired.

Ends of staves are accurately kerfed through their centers (not off to one side) to admit the steel splines, which are cut a trifle longer than the width of staves and embed themselves in edges of adjoining staves when the hoops are being tightened, making the joints permanently water- and air-tight and positively stronger than solid wood. Care is taken in drafting each Unadilla plan to have the joints break correctly all around the Silo.

Adjustable Steel Cables Afford Reliable Anchorage



The Unadilla Silo is securely connected with its base and prevented from moving out of the position in which it is erected by four adjustable cable anchors, embedded in the concrete foundation and attached to the Silo by patented clamps which fit over the bottom hoop and are bolted to inside plates as shown by the illustration.

As a further precaution against damage by high winds, each Unadilla is equipped with a set of steel cable anchors which extend from the top through an equalizing saddle on the ground rods back to middle of Silo, and attach over hoops by clamps in same way as the base anchors. A nut on the threaded grouud rod, atop the equalizing saddle, provides the " take-up " adjustment necessary to keep all cables taunt and capable of preventing the Silo being damaged when assailed by severe storms.

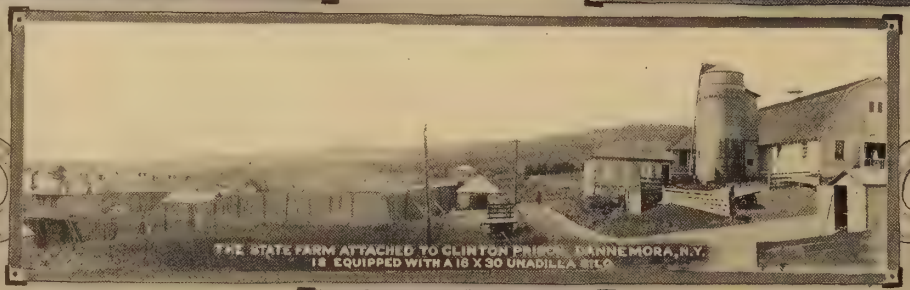
George H. Moore & Son's Oregon Fir Unadilla Silo, Bennington, Vt.

The Walter S. Pratt Farm, Brattleboro, Vt., has a 14x30 Unadilla Silo

A FEW OF THE FARTHEST NORTH UNADILLAS

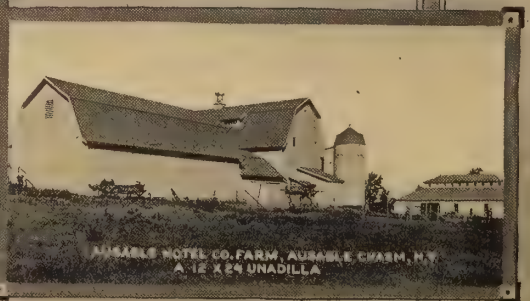
where they keep silage prime

JEROME DEYO, PLATTSBURG, N.Y.
A 12 X 24 UNADILLA


T. E. STATE FARM ATTACHED TO CLINTON PRISON, DANNEMORA, N.Y.
IS EQUIPPED WITH A 16 X 30 UNADILLA SILO

THE J. H. MOFFITT FARM, PLATTSBURG, N.Y.
USES A 16 X 30 UNADILLA

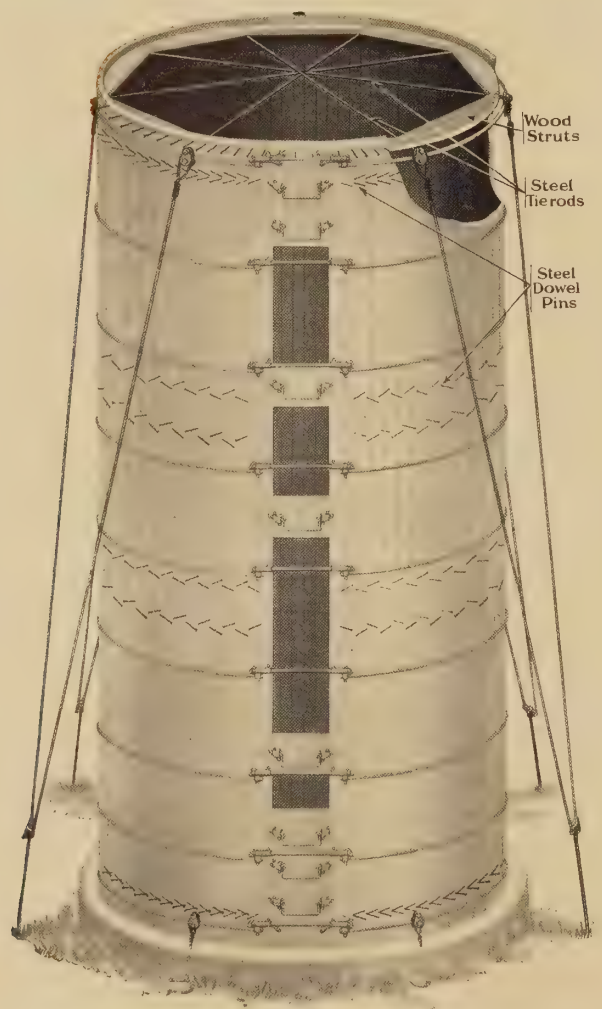
H. D. GALE'S BONNIE VIEW FARM
POINT AU ROCHE, N.Y.
A 16 X 30 UNADILLA


AUSABLE HOTEL CO. FARM, AUSABLE CHASM, N.Y.
A 12 X 24 UNADILLA

Dairy Buildings on the Farm of Dr. Walter C. Wood at New Canaan, Conn., where Three 12x26 Unadilla Silos are in High Favor

GENTLEMEN: I am much pleased with my Unadilla Silos. The door fronts are very convenient and ensilage keeps fine. The gambrel roofs enable us to get the full tonnage of Silos by filling the roofs full. Then when silage settles we have practically full Silos of feed.—DR. WALTER C. WOOD.

The Perfected Trussed Silo Top and Stave Dowelling System



While the regular type of Unadilla Silo, as illustrated and described in the pages of this catalog, possesses the most reliable, safest and convenient hoop tightening facilities for keeping the Silo in perfect condition with least effort, nevertheless a Unadilla Silo when outfitted with the extra equipment of the Perfected Trussed Top and Stave Dowelling System, at the moderate extra charge made for each separately, provides a Silo that positively stands unequalled for fixed stability—one that will remain as secure on its foundation, under the stress of the severest wind storms, as does a deep-rooted mountain oak.

Both the Perfected Trussed Silo Top and Stave Dowelling System were developed by our construction experts in 1920. Letters patent were granted restricting their use on Unadilla Silos only, and they were applied to the construction of Unadilla Silos marketed in the Middle Western and North Western states, where they have proven so wonderfully efficient, staunch and trustworthy in those wind-swept regions, that their use will henceforth be granted to any Unadilla purchaser in the East who desires his Silo equipped with these extra and super-strength bestowing accessories.

The combined purpose of the Perfected Trussed Silo Top and Stave Dowelling System is to eliminate the twisting, leaning or premature collapse of the Silo, conditions which most commonly result from negligence on the part of the owner in keeping the hoops tight, a neglect that all too frequently causes the Silo to topple before the first high wind that happens along.

While the Trussed Top parts or the Stave Dowelling system may be purchased separately, just as the customer elects, we strongly urge and recommend their joint use, as shown by the photo-engraving opposite, thus making the Unadilla Silo possess the greatest possible strength and rigidity, under the most trying conditions, for the reasons herein related of both equipments.

The Perfected Trussed Silo Top consists of a required number of wooden struts shaped to the exact diameter of the Silo and used in conjunction with steel tie rods spanning the top, as indicated by the illustration, which accurately depicts the structural features.

The wooden struts, butted tight together, exert an inside bracing effect against the Silo staves, to which they are firmly nailed, while the steel tie rods, extending across the Silo, passing directly underneath the butted ends of each wooden strut, through the Silo staves and cable anchor clamps embracing the top hoop, exert an inward pull, when tightened up, thus bringing into play a truss.

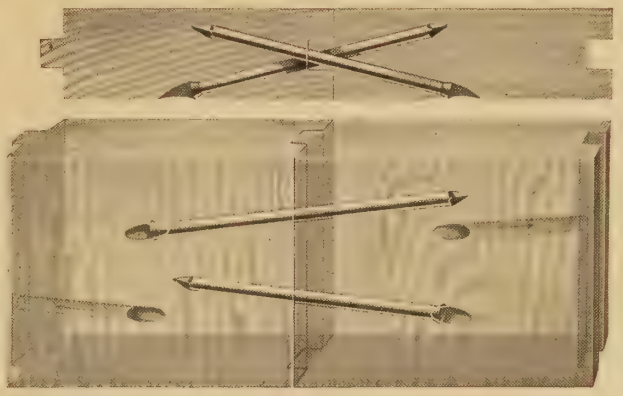
By means of this truss the top of the Silo is held in permanent circular form, a condition essential to preventing one side of a neglected Silo from flattening and caving in. This truss construction therefore affords real insurance against the Silo's collapse under pressure or strain of storms, and relieves the owner's mind of all worry on that score.

Six wooden struts and three tie rods are furnished for Silos of 12 ft. diameter and under, while Silos of greater diameter are equipped with eight struts and four tie rods.

With the Perfected Trussed Top are furnished a sufficient number of cable anchors to connect with the ends of each steel tie rod. These cable anchors extending, as they do, from ground rods on either side of the Silo, bring into action a continuous anchorage system that holds the Silo top more securely, and with the least liklihood of swaying under heavy wind pressure, than does any other anchorage system that has been devised to date.

Use of the Perfected Trussed Top does not interfere with filling the Silo to the limit of its capacity, prove a hindrance during the trampling procedure or retard the extra ensilage blown into a gambrel roof from settling into the Silo proper.

A casual glance at the location of the steel tie rods makes it readily apparent that by laying planks across the rods an excellent footing is provided by which construction of the roof is facilitated with safety, as is likewise the work of placing the blower and distributor pipes in position each time the Silo filling season arrives.



X Ray Views of Two Staves Showing Application of the Steel Dowels and the Resulting Strong Union of Parts

THE PERFECTED STAVE DOWELLING SYSTEM

It is a well-known fact that the staves of a Silo expand in the fall, when filled with juicy ensilage, and contract as the contents are removed and the Silo dries out. It is during this drying out period that the hoops should be looked to and taken up. With this attention given all would be well with the Silo. But when the hoops, from lack of attention, are permitted to remain loose, trouble is quite apt to follow. The Silo is in danger of being blown down.

The Perfected Stave Dowelling System, as illustrated by the accompanying photo-engraving presenting X-ray end and face views of two staves showing the steel dowels in place, is designed to circumvent all trouble arising from neglected hoops in these three ways:

First—by preventing the Silo staves changing their relative vertical position, one with the other, thus eliminating subsequent twisting of the Silo;

Second—by preventing the staves pulling apart and falling in;

Third—by preventing the staves slipping in their matching—the main cause of a Silo's leaning and eventual collapse.

These three extremely desirable corrective features are obtained by running the staves through an automatic boring machine in our factory, four holes being accurately bored in each piece of stave at the correct angle to take and direct the special $\frac{1}{4}$ in. by $4\frac{1}{2}$ in. steel dowels, which are inserted and driven about two inches into the adjoining staves after the Silo is completely erected and tightened up.

It will be noted that four dowels start in each piece of stave about 8 inches from both ends, two penetrating each adjoining stave. The cross thus formed by the dowels, plainly illustrated by the X-ray end-section view which shows this particular feature, ties the staves securely together. Each dowel further operates to prevent any vertical slippage of the tongue of one stave in the groove of another. It is such slippage, remember, that permits a Silo to twist or lean.

Another point to consider is this—it doesn't matter how much the staves swell or shrink, there's no breaking the tenacious grip of the steel dowels.

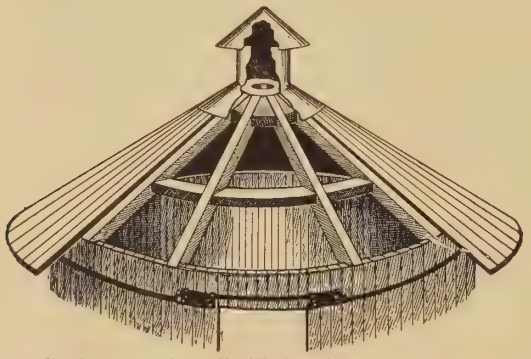
This dowelling system, our engineers believe, possesses adequate strength in itself to hold the Silo intact, upright and rigid without hoops, although their use is retained, not alone because of the additional strength they impart to the structure, but to insure absolute safety in offsetting the great lateral pressure exerted against the Silo walls while the silage is passing through the fermenting and curing stages. It is during this period that tile, concrete and triple wall Silos frequently bulge, burst or crack open and have to be hooped to prevent their destruction.

The foregoing is an accurate representation of just how the Perfected Trussed Top and Stave Dowelling System combine to make the Unadilla the staunchest and most trustworthy of all Silos, not excepting glazed tile, concrete, metal or triple wall construction.

The joint use of these extra accessories give to the Unadilla purchaser a feeling of security and satisfaction, relative to his investment, that comes from knowing that the construction principles involved bring about the preclusion of the causes of his Silo getting out of round, twisting or leaning, besides embodying the limit of strength and stability, at least cost.

Unadilla Roofs are Well-Proportioned, Strong, Serviceable and Permit Filling the Silo to Its Capacity

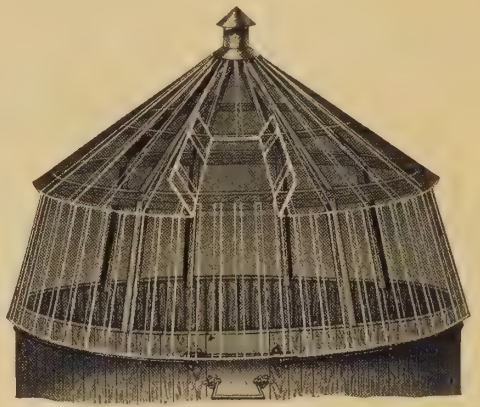
Nothing will hasten a Silo's destruction, or impair its succulent contents, more than to leave it unroofed and open to swirling winds, beating rain storms, snow and frost. By all means roof your Silo, thereby giving security to the structure, protection to its store of valuable feed and derive that personal comfort that comes from working under cover.



Showing construction of Unadilla Conical (one-third pitch) Roof

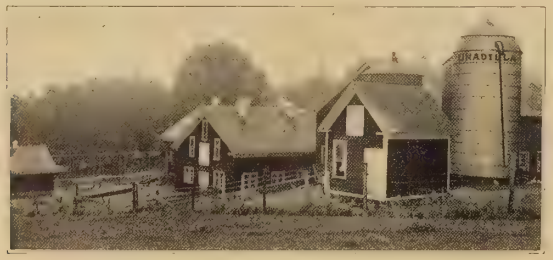
Unadilla Roofs of the types of construction here shown are built of such species of lumber as are the least affected by continuous exposure to the elements. Their serviceability, as relates to the purpose of roofing the Silo, is not excelled.

Purchaser has his selection of two styles—the Conical (one-third pitch) and Gambrel. Both types are well-proportioned, attractive in appearance, staunchly constructed and add materially to the Silo's rigidity. The Gambrel type is chosen by those who desire their Silo to have maximum storage capacity, as it affords working space in which to tramp the silage firmly to top of staves and allows for a reserve supply of several tons to be blown in above to offset the loss in tonnage capacity that results from settling.



Showing Unadilla Gambrel Roof Construction

A roof outfit includes all boards, rafters, battens, etc., cut to fit, hexagon peak block, hinged door filling section and galvanized iron ventilator. A dormer window instead of hinged doors supplied when preferred, at nominal extra cost. While a roof is not included in the price of a Silo, the additional cost is made moderate to encourage its use.



The O. W. Means Farm, Brookfield, Mass., has a 16x30 Fir Unadilla

Wood Brook Farms, near Metuchen, N. J., have used both wood and tile Silos for years a 20x32 Unadilla being the last type installed

Unadilla Silos are Made in These Sizes and Capacities

The following table lists the sizes in which Unadilla Silos are made; their storage capacity, acres of crop necessary to fill, and number of cattle which can be fed 40 pounds of ensilage per head daily for 180 days. The greatest economy results from purchasing a Silo large enough to supply all the farm animals with a regular ration of this nutritious feed, thereby gaining the benefit which ensilage works out in cutting down feed costs. Horses require 10 to 15 pounds daily; Swine, 4 pounds; Lambs, 2 pounds; Ewes, 4 pounds; Poultry, 15 to 25 lbs., per 100 fowls.

OUTSIDE DIAMETER AND HEIGHT	CAPACITY IN TONS	NO. OF COWS	ACRES OF CORN	ESTIMATED WEIGHT
8x16	15	4	1½	1800
8x20	19	5	2	2200
8x24	23	6	2	2600
8x28	27	7	2½	3000
10x20	31	8	3	2900
10x22	34	9	3½	3100
10x24	38	10	3½	3300
10x26	41	11	4	3600
10x28	44	12	4½	3800
10x30	47	13	5	4000
10x32	51	14	5	4300
10x34	55	15	6	4600
10x36	60	16	6	4900
12x20	45	12	4½	3300
12x22	49	13	5	3600
12x24	54	15	5½	4000
12x26	58	16	6	4400
12x28	63	18	6	4600
12x30	68	19	7	4900
12x32	73	20	7	5200
12x34	78	21	7½	5500
12x36	83	23	8	5800
14x24	74	20	7	4600
14x26	80	22	8	5100
14x28	86	24	8½	5500
14x30	92	26	9	5900
14x32	98	27	10	6300
14x34	104	29	10	6700
14x36	110	31	11	7100
16x28	112	31	11	6300
16x30	120	34	12	6600
16x32	130	36	13	7100
16x34	140	38	14	7600
16x36	150	41	14½	8100
18x30	153	43	15	7500
18x32	163	46	16	8000
18x34	173	49	17	8600
18x36	183	52	18	9200
20x30	189	53	19	8400
20x36	226	64	22	10000
20x40	251	71	25	11000
25x35	344	95	34	11500
25x40	393	110	39	13500

Why it is Most Profitable to Place Your Order Early

Briefly stated, the reasons why we counsel prospective Silo buyers to file their orders early in the season, and stipulate immediate shipment, are these: our cash discounts are then the most liberal; car shortage and transportation delays, due to congested traffic conditions which always arise during the summer months, can be the better circumvented, while the early arrival of the Silo on the farm permits of its erection at any opportune time and relieves the owner of all worry and concern in the knowledge that his Silo is in readiness to save the soiling crops when they tend to over-ripeness ahead of feeding needs, or to receive the main silage crop when threatened by premature frost or at any stage of its growth or maturity.

Upon receipt of an order for a Unadilla Silo the purchaser is immediately furnished with comprehensive instructions covering, by word and illustrations, every detail of its proper erection, including the best method of building the concrete foundation. A check sheet, listing all parts, is mailed in advance of the shipment and enables the consignee to check up the material as it is taken from the car and know that his Silo has been delivered complete.

Please advise us how large a Silo will take care of your feeding requirements, (see the table opposite) and we will promptly quote lowest prices and best terms, or without obligating you in any way whatsoever have a representative call and demonstrate a working model of the adjustable front and ladder doors.

Photo of the Unadilla Silo on the Robert Shuey Farm, near Greensburg, Pa., where dairying and coal mining clasp hands

Commendatory Letters Received from Unadilla Owners

Just as "the proof of the pudding is in the eating," so, too, is the proof of superior construction, quality of materials and ease of erection best realized by those who have bought, set up and used Unadilla Silos. Herewith we reprint just a few of the hundreds of similar letters received from customers in which they frankly express their opinion of the Unadilla:

Prefers Ensilage Cured in a Wooden Silo

Gentlemen:—The 40 ft. Unadilla Silo which I purchased of you arrived in fine condition and my carpenters told me they never saw a nicer grade of lumber. The manner in which it went together was very pleasing indeed, and today it would be difficult to find a joint, at the side or ends of staves, inside or out, in which you could insert a knife blade. I purchased this Silo because I believe it's the best on the market. I have fed from several different Silos, the tile included, but give me the nice sweet ensilage from a wooden Silo, and that one the Unadilla.—E. C. HAVENS, Manager Lorenzo Stock Farm, Cazenovia, N. Y.

An Experience With a Home-Made Silo

Gentlemen: Permit me to express myself concerning Silos and my experience with them. First, at the time I built my barn I had my carpenters build me a Silo. My instructions to them were, and these instructions were carried out to the letter, not to spare one cent but to build the best. This was done at a cost of over $300.00. I was rather proud of this Silo and believed I was feeding from it the best of ensilage, until I was induced to put up a Unadilla. Right here is where I learned the lesson that we get only from experience. The same variety of corn, cut at the same time, and put up by the same process, came out of the Unadilla worth to me in the production of milk at least 25% more than that taken from my home-made Silo. As you know I have since erected the second Unadilla. My next move will be to pull down my $300.00 experiment and put up the third Unadilla.—W. F. LUCAS, Cazenovia, N. Y.

"Westlawn Farms," the country home of Ex-Congressman Wm. H. Hill at Johnson City, N. Y., are equipped with four Unadilla Silos, two 12x24 having shingled gambrel roofs

Showing one of the two 14x32 Unadilla Silos used to profitable advantage on the farm of Henry P. Caldwell, North Attleboro, Mass.

Two Unadilla Silos Boost this Dairyman's Profits

Gentlemen: Herewith a photo of my two 12x30 White Pine Unadilla Silos, the first one of which was purchased in 1912, proving so satisfactory in every way and such a booster of dairy profits that when I found it practical to increase my silage corn acreage in 1914 I bought the second Unadilla to provide the storage. By this it is plain that the first Unadilla made good, and the second has only served to strengthen my high estimation of your product.—F. D. DUDLEY, No. Branford, Conn.

Milk Flow Increases and Young Stock Thrive

Gentlemen: In erecting my Unadilla Silo I found that everything fitted and went together in good shape. When I opened Silo found the ensilage in good condition. My cows are gaining in milk and young stock improving.—BENJ. RUTLEDGE, Rileyville, Penna.

Ease of Erection is Characteristic of the Unadilla

Gentlemen: I want to say that the Unadilla Silo purchased this season (1920) has proved satisfactory in every particular. Perhaps my knowledge of wood-working helped me in putting it up, but anyone could put it up, it went together so nicely.—CLAUDE C. MERRIHEW, Plattsburg, N. Y.

Farm Hands Erected This Large Unadilla In Three Days' Time

Gentlemen : Just a few words to let you know how pleased I am with my 16x30 Unadilla Silo. It is perfect and went together easy and without the use of tools other than a hammer and wrench. I am much pleased with the gambrel roof. It not only sets the Silo off but adds greatly to the filling space. My own farm help set this Silo up within the time of three days.—CHARLES H. WAKEMAN, Little Meadows, N. Y.

More Evidence that the Ready-to-Erect Unadilla Goes Up Easily

Gentlemen : I am pleased to advise that my 10x24 Oregon Fir Unadilla Silo with gambrel roof, and a 10-ft. extra pit section, arrived in good time and in good shape. We were more than satisfied with the quality of the material furnished and had no trouble in putting the Silo up. It took five of us just ten hours to erect the Silo complete, including the scaffolding used.—WILLIAM BRINTON, Glenrose, Penna.

THE RHODE ISLAND SOLDIERS' HOME AT BRISTOL, R. I., IS EQUIPPED WITH A 10 X 28 OREGON FIR UNADILLA SILO

Seventeen Unadilla Silos Have Been Erected on the Grounds of the State Agricultural and Industrial School at Industry, N. Y.

UNADILLA SILO CO., Unadilla, N. Y. Gentlemen: In the absence of Supt. Bruce I am pleased to say a few words in favor of the Unadilla Silos in use at this Institution. The fact that we have placed seventeen of your Silos on the School grounds is in itself a most complimentary testimonial to their worth and should the needs of the School require more the Unadilla Silo would undoubtedly be purchased. Respectfully, PROF. M. J. CARR, Acting Supt.

First Season's Milk Increase Nearly Paid for Silo

Gentlemen: After keeping an accurate account of my dairy in seven months feeding last winter, with a Unadilla Silo in use, and comparing it with the corresponding seven months of the previous winter, I found that the increase in flow of milk from the same dairy of fourteen cows nearly amounted to the purchase price of the Silo. I am further convinced that no dairy can be made to pay actual maintenance expenses through the winter months unless they have ensilage, and I am more than pleased with the Unadilla purchased of you, one man and myself erecting it, roof and all complete, in just two days. It has given complete satisfaction.—W. A. THOMPSON, Jamestown, N. Y.

This Unadilla Silo Increasd Farm Profits in Several Ways

Gentlemen: My Unadilla Silo has saved me many a cold finger husking corn and a lot of hard work caring for the dried corn fodder. The season before I purchased my Unadilla I stored the dry corn fodder overhead in the barn and later got a shredder and had it shredded. Then the fodder heated and burned and I had a big job to get that stuff out on the field for manure.

I raised six acres of Leaming corn and filled the Silo from five acres, but had room for the other acre after the first filling had settled. It was an extra dry season and I only raised fifteen tons of silage to the acre, the 90 tons costing me $92.50 from seed into the Silo.

As compared with dry fodder, I consider my ensilage worth three times as much and more the way it turned out with me, as the ensilage lasts until grass while my dry corn fodder was gone by the first of the year.

Silage saves two-thirds of the mill feed, if there is lots of corn in it, and about one-half if the Silo is filled with regular silage corn and no ears.

My stock has gained 50% in appearance and are worth that much more when I get ready to market them. Before I bought the Unadilla I sent the whole milk to a creamery, as I was not getting enough milk to pay to separate at home, but since feeding silage, on one-half the grain, I get over double the amount of milk, while my feed bill is not half as much. Formerly I wintered six or eight cows, now I have twenty-six.

I feed a bushel of silage to the milk cows, one-half bushel to the other stock and a little to the colts, with good results. My grain ration is composed of the following mixture, fed at the rate of one pound to every four pounds of milk produced; 100 lbs. bran; 100 lbs. gluten; 100 lbs. oats; 100 meal; 100 lbs. oil meal; 50 pounds linseed meal.

The Unadilla Silo would be hard to beat. It is made of a fine grade of wood and is a good ensilage preserver. The doors, whose fasteners make a safe ladder, can be tightened up so that they always fit the door frame to the exclusion of air. I never lost a bit of silage, while my neighbors, with other makes of Silos, say theirs spoils around the doors. My Unadilla came in fine condition and went together like clock work.—CHARLES R. HIMEBAUGH, Centerville, Penna.

On this Pennsylvania Farm Silage Saved 80% of Feed Bills

Gentlemen; I bought my farm a few years before purchasing a Unadilla Silo and found, even though it was a big farm, that it produced such light crops of hay that but few cattle could be kept. Now, with the Silo, I can keep double the number of cattle, save 80% on my feed bills, my milk checks are larger and the silage saves buying in many tons of hay each year. My Silo is certainly a money-maker and labor saver.—JOSEPH PLANESHEK, Uniondale, Pa.

The Unadilla Goes Up Without a Bit of Trouble

Dear Sirs: The 10x22 gambrel roofed Unadilla Silo arrived in excellent condition and went together without a bit of trouble. There is no better Silo in this section. The door features are fine —E. BENTON, Guilford, Conn.

H. P. Hood & Sons, New England's Largest Independent
Dairy Company, use UNADILLA SILOS and TANKS on
their famous Cherry Hill Farm at Beverly, Mass.

The Employees of Hood & Sons Find the Unadilla Door Front a Pleasing Convenience

Gentlemen: We are very much pleased with the two large Unadilla Silos which we purchased for our Cherry Hill Farm at Beverly, Mass. They are in every way more than satisfactory. As you probably know, we have a great many visitors at this farm and there has not been a day since they were set up that some visitor has remarked about how nice they looked and how well the ensilage was keeping. The ensilage is coming out in perfect condition, and we like very much the convenient door front, and the men are very much pleased with the convenient ladder which the door fasteners afford. Before we purchased these Silos some of your competitors in their talks to us intimated that this ladder was a joke. Now, believe me, our men can testify that this ladder is no joke, but that it is a real ladder and much preferable to building a ladder on the side of the Silo as is necessary with some other Silos. H. P. HOOD & SONS, Boston, Mass.

Much Less Time Required to Erect the Unadilla

Gentlemen: The 12x26 Silo purchased of you went together fine. A neighbor bought another make. They worked a day setting it up; what they got up fell down, and they were several days erecting it. I bought a 16x30 Silo of you six years ago; a door has never bothered; the Silo stands straight, is as good as new and very satisfactory. The Unadilla is good enough for me.—J. E. BROMLEY, Granville, N. Y.

Unadilla Kept Ensilage Better than Cement Silos

Gentlemen: It gives me pleasure to add a good word for your Silo. Although we did not open the Unadilla for almost a year, the silage was found in perfect condition. The keeping qualities of your Silo excel our cement Silos which cost us a great deal more. I heartily recommend the Unadilla and believe it to be the best stave Silo made.—G. H. GREAVES, Manager Whitney Point Stock Farm, Whitney Point, N. Y.

Silage Keeps for Months in the Unadilla

Dear Sirs: I wish to state that we have filled our 20x36 Unadilla Silo for five years carrying some silage over to feed during July and August and I have found that the silage kept better in the Unadilla than in any Silo I have ever seen. As for material and construction I do not think that of the Unadilla can be found duplicated in any other make.—C. A. LLOYD, Superintendent L. E. Carpenter Farms, South Edmeston, N. Y.

Unadilla Material Rarely Fails to Satisfy

Gentlemen: The Unadilla Silo of Oregon Fir purchased of you came on time and went up without a hitch. Think I can truthfully say it is the best in this section and free from knots and cracks. FRED GODARD, Supt. Hartford County Temporary Home for Dependent Children, Warehouse Point, Conn.

Twin 14x30 Unadillas on the farm of Hon. J. H. Fuller at Stittsville, N. Y., covered with a double roof of the owner's designing

The W. A. Feeter & Son Dairy Farm near Little Falls, N. Y., finds profitable use for two large capacity Unadilla Silos

No Juice Oozes Through the Unadilla Door

Gentlemen: The Unadilla Silo has met our requirements and we are pleased with the results we have obtained. The construction of the front is excellent, the doors not only fit in easily but are tight and hold the juice of the ensilage. Our other two Silos leak badly around the doors. We feel justified in this expression of satisfaction.—W. S. DUNN, Manager Flintstone Farm Dalton, Mass.

Prominent Dairyman Recommends the Unadilla

Gentlemen: After inspecting different makes of Silos, I concluded to purchase a Unadilla. Since then I have bought one more of you and am certainly well pleased with my choice. The door front is the most convenient of any I have ever seen and your hoop tightening arrangement is a mighty fine idea. In case you should find occasion to refer to anyone for a recommend for your Silos, I will be pleased to be of service. -FRED W. HOPKINS, Seekonk, Mass.

Increased Milk Flow Will Soon Pay for this Unadilla

Gentlemen: The only thing that I regret about the Unadilla Silo I bought in 1922 is that I didn't buy it 10 years ago. My six cows are giving 15 quarts more milk a day this winter than last. I am much pleased with the Silo and the results obtained.—HARRY B. HILL, East Granby, Conn.

Here's Good Evidence that Unadilla Silos Possess Durability

Gentlemen: For the past twelve years I have used two of your Unadilla Silos. They have stood up well and my ensilage has always been of the very best quality. Last year (1923) I put up a new dairy barn and therefore had to take down one of the Silos, a 14x30, and rebuild it. Not a single stave did I find that was not perfect. I am first, last and always for the Unadilla Silo.—CHAS. F. E. SCHILF, Bethany, Conn.

When fed as silage, 90% of the fertilizing elements in the crop is returned to the land in the form of manure

Rollwood Farm, Widely Known Throughout New England for Its Valuable Guernsey Herd, Operates Five Unadilla Silos

The accompanying photo-engravings present scenes at Rollwood Farm, Guilford, Conn., a valuable dairy property owned by Ex-Governor Rolin S. Woodruff of New Haven, Conn.

This farm is famed for its large Guernsey herd, numbering one hundred and fifty choice aristocrats of the breed, with a daily milk production of upwards of 1000 quarts of the cleanest and purest milk imaginable, since during a period of eighteen months out of a recent thirty, Rollwood Farm has had the honor of holding the highest score for cleanliness, low bacterial count and high butter fat content of any dairy coming under the observation of the New Haven Department of Health.

When Rollwood Farm began feeding silage from the first Unadilla Silo purchased in 1910, there were only fifteen head of dairy cows kept, but with the constant growth of the herd other Unadillas became mandatory, until now five of ample dimensions are in use, the last, a 16x30, being installed in the summer of 1924.

Actuated by a sense of pride in having a battery of five Unadilla Silos in use on such a widely known and progressive modern farm as Rollwood, where the highest standards rule, inquiry was made to learn why the Unadilla was chosen from time to time and just what importance the farm management attached to having a plentiful supply of silage available as a basis of the roughage ration. In reply Superintendent Paye states:

"Here at Rollwood we consider first that we could not keep our herd at a profit without silage and we believe the Unadilla Silo superior to all other makes, both as to material and convenience in putting in and taking out the silage.

"There is less waste around the door front than any other make. Also after the Silo is opened and the top cleaned off there is absolutely no waste whatever.

"All our dairy animals are given a liberal supply of silage, in fact it is the base of the roughage ration, and I am sure that without a liberal supply of such succulent, wholesome feed these cows would not have done so well in their records."

Among the heavy producers at Rollwood Farm "Jethro's Violette" completed a Class AA test with 16,000 pounds of milk and 625 pounds of butterfat to her credit, which goes to justify the claim that practically all of the world's dairy records have been made by cows that are fed liberally of silage.

Appletree Point Farms, the fine property of U. A. Woodbury, Jr., at Burlington, Vt., are equipped with twin Unadilla Silos

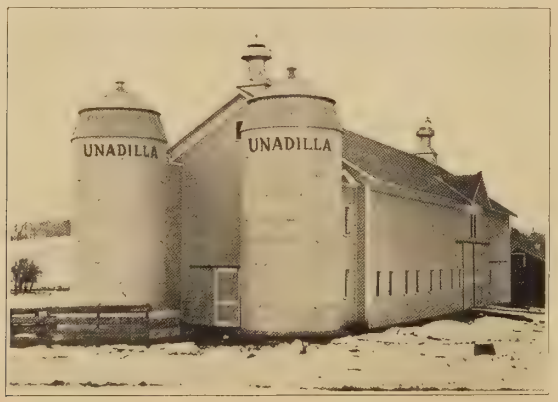
The Gaylord Dairy Farm, near Wallingford, Conn., has a battery of three 14x30 Oregon Fir Unadilla Silos

Unadilla Silo Proved Best of Eight Kinds

Gentlemen : We have used Silos for twenty years and have eight different Silos including two concrete, one built of blocks, the other solid concrete. It is our opinion, based on experience, that the Unadilla Silo is superior to any of the others, well constructed of good materials and keeps silage in excellent condition. We would not know how to get along without Silos. We are compelled to provide something to take the place of grain, at least to some extent, or quit. Silage does this as well as furnishing succulent food so necessary to the cow to make her do her best.—MCLAURY BROS., Portlandville, N. Y.

Unadilla Door Front Makes Silage Removal Easy

Gentlemen : I am decidedly appreciative of my two 12x30 Unadillas purchased in 1917, especially since using them through a full feeding season and profiting by the great saving they effect in milk production costs. I would not part with my Silos for double their cost and it is my firm opinion that silage should be fed on every milk producing farm. The Unadilla door front is mighty convenient especially as relates to the removal of silage, while the ladder doors certainly make it very easy to get into the Silo. My Silos were the first in this locality having the gambrel roofs and they add materially to the capacity.—J. C. WELSH, German Valley, N. J.



Twin 12x24 Unadillas on the T. D. Townsend Farm, Hartford, N. Y.

The large dairy farm operated by Oneida Community, Ltd., at Sherrill, N. Y., is equipped with twin 14x32 Oregon Fir Unadillas

THE UNACO SILO---One of Real Practical Merit Though Lower in Price

Here's a truly good Silo that represents full value in ensilage keeping qualities, though it lacks several of those labor-saving conveniences that are found exclusively in the quality-built and more to be desired Unadilla Silo.

The Unaco Silo is designed more particularly to meet the demand for a good, cheap Silo for installation by tenant farmers, who care more about its utility as a silage storehouse and lower cost than about those qualities that make for greater durability, better appearance, and time-saving helps. It is, furthermore, of advantage to any farmer in a season of bumper crops, when more corn is found on hand than anticipated, with facilities lacking to ensile it. The Unaco will take care of the surplus crop equally as well as any Silo, not even excepting the Unadilla, and with greater surety of the feed curing and keeping better than in any of the cheaply constructed job-lot Silos put out nowadays by retail lumber yards and saw mills.

As the photo-engraving on this page shows, the Unaco Silo has a continuous door opening and hoops that end at the front, the tie-rod connection enabling the owner to do his hoop tightening at the front, where it is easiest done.

The door frame jambs are made of the same width material as enters into the staves and the frame is not adjustable.

Instead of two easily-handled light doors between each hoop there is but one—heavier and twice as high. Unaco doors measure about 30 inches in height and are built of single-thick, tongued and grooved pieces (same material as used in the walls). The grain of these pieces extends across the door opening (which precludes the doors swelling and binding in the frame), and are held by two strong cleats on which the door fasteners are mounted. The door cleats are flush with outside of the Silo, and bevel off to butt against the door frame.

The doors are enough wider than the opening to permit their face to come in close contact with back of door frame, their side edges beveling towards the center.

The top and bottom door edges are rabbited to permit doors to nest together in the frame and seat closely.

The Unaco is equipped with a ladder up its front, the rounds of which are alternately formed by a door fastener and a tie-rod connection, the clearance between the tie-rod and face of door being ample to provide a good foot hold.

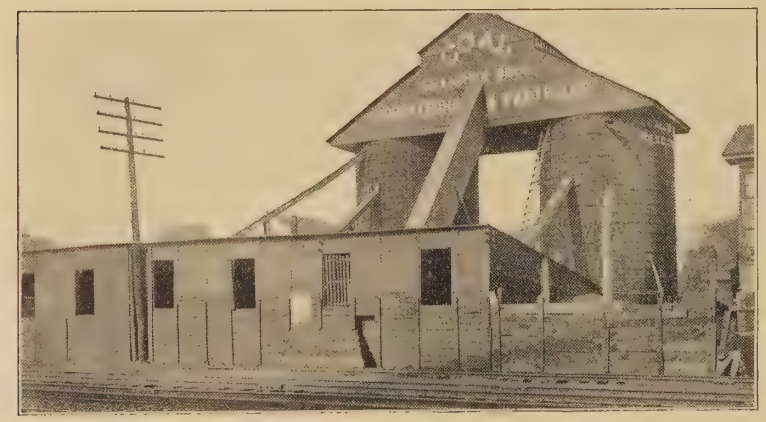
There is this big difference between the Unaco and some of the cheap Silos of the time—it's door front is received assembled and ready to set up in place on foundation. All labor and cussing incident to assembling a front from a miscellaneous assortment of parts is thus obviated.

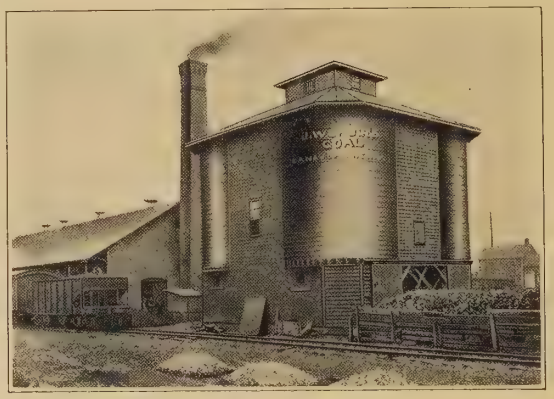
This Silo is furnished in one variety of wood only—Spruce, of merchantable silo quality. It is built down to a price, but it's a real value in every sense of the word.

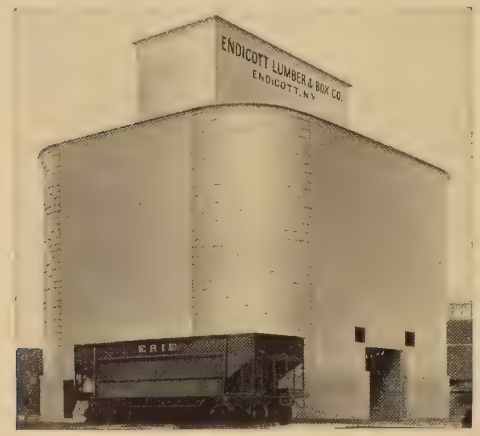
Those who purchase a low-priced Silo usually have it in mind to cover with a roof of their own making, but when wanted the regular Unadilla conical or gambrel type of roof will be furnished the Unaco purchaser.

Modern Round Pockets for the Economic and Compact Storage of Coal and Similar Bulky Commodities

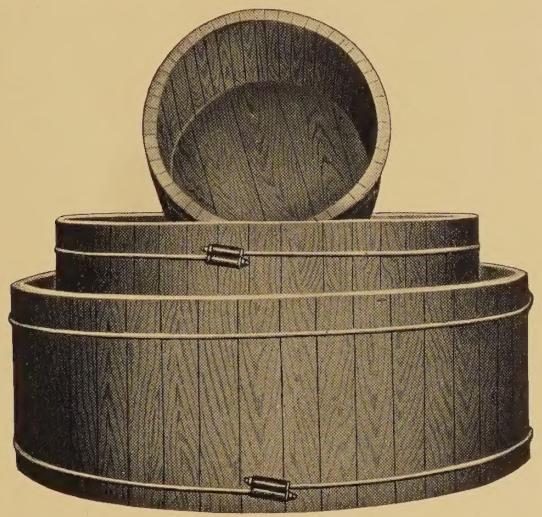
The photo-engravings here shown of two-unit and four-unit coal pockets give evidence of the practical use to which Unadilla Tub Silos are being put by enterprising dealers in providing economic storage for large quantities of coal at minimum building expense. Where ground room is limited the round pockets compact immense storage into the smallest space. For such construction we only furnish the staves and hoops for the bins. Coal dealers who are planning to increase their storage capacity or erect new plants will find it advantageous to get Unadilla prices on a battery of round pockets. They are more durable than square bins and cost much less to maintain. The round pockets are likewise perfectly adapted to the storage of sand, gravel, crushed stone and similar materials by manufacturers of concrete products.







Round Live Stock Watering Tubs, Rectangular Milk Cooling Vats and Upright Water Storage Tanks

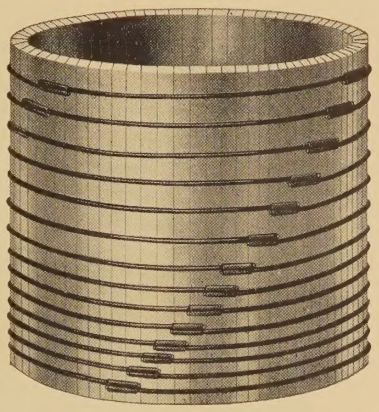


Our engagement in the manufacture of Round Water Tubs, Rectangular Cooling and Upright Storage Tanks was coincident with the start of manufacture of Unadilla Silos in 1908, since when we have become recognized as builders of tubs and tanks of the dependable kind—such as will measure up to every test of their intended purpose.

The central location of our plant in the East is one reason why the output of our tub and tank department is constantly increasing, because the farmer in need of a tub for stock-watering and similar uses, or a rectangular tank for the milk cooling house, can secure delivery more quickly from Unadilla, and with less outlay in transportation costs, than elsewhere.

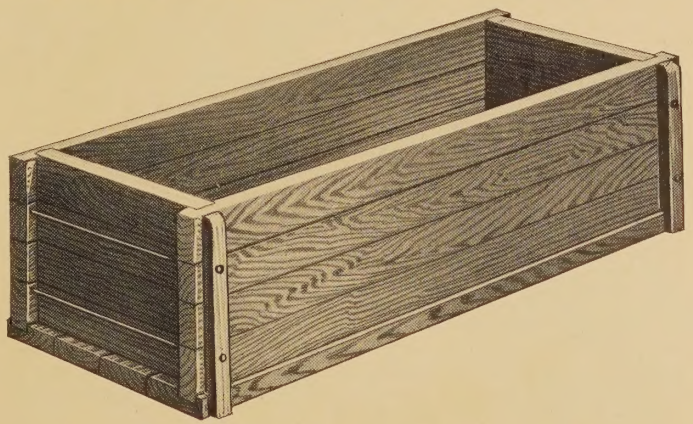
The Round Water Tubs are furnished in four woods—Cypress and Oregon Fir, two of the very best native tank woods; White Pine, the old reliable tub material, and Canada Spruce, which makes a very desirable tub at lowest first cost.

The Rectangular Cooling and Upright Storage Tanks are constructed in accordance with the most approved methods and built of Cypress, Oregon Fir or White Pine, as purchaser elects. The bottom of both shapes are grooved and dowelled together. So are the side and end parts of the rectangular tank, while the staves of the upright type are bevelled to an exactness demanded in such tanks. In both instances the rodding and hooping is more than ample to withstand any full capacity pressure of contents brought to bear upon them.



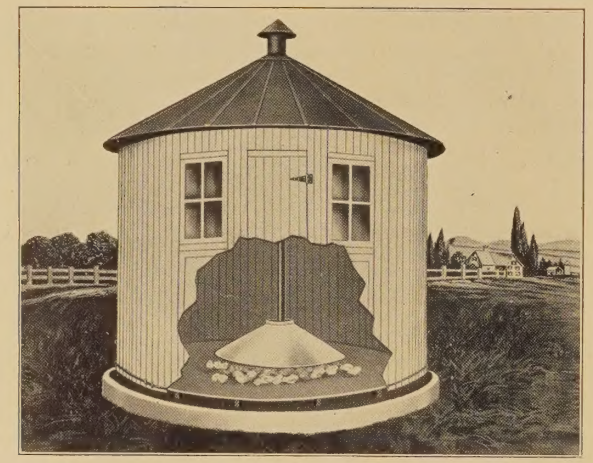
A good Cooling Tank is fast becoming mandatory in every milk house, for without such no dairyman can secure the top prices paid for milk and cream of right quality,—that which has been properly cooled on the farm before taken to market.

The Upright Storage Tanks are ideal for the roof-storage of water for fire protection, and attic installation for supplying farm homes with the facilities of a modern bath room and inside sanitary toilets.



Detailed information respecting Unadilla-built Tubs and Tanks is given, with their prices, in a special catalog. Request will bring copy.

Unadilla Cornerless Poultry Houses and Unadipt Wood Blocks for Stable and Other Floors

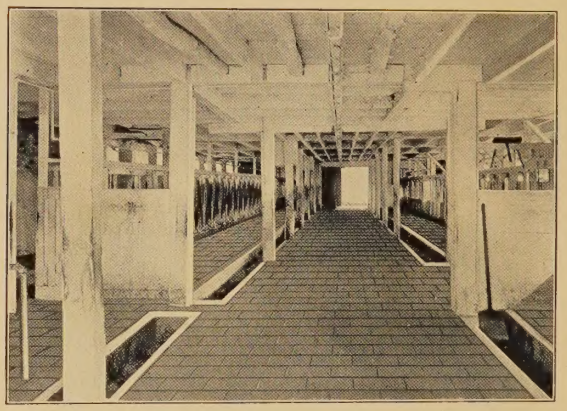


Success with poultry depends largely on proper housing. The Unadilla Cornerless Poultry House is a portable, sanitary, durably built, well-ventilated structure, admirably adapted to the purposes of a brooder, colony or laying house.

Its thick walls of tongued and grooved silo stave stock are cold, wind and vermin proof. There are no dark, dank corners for disease-breeding filth to collect in, and its front of hinged sash windows and muslin covered frames admits plenty of sunshine and fresh air, nature's best purifiers, unattended by draughts.

When used as a brooder house, with hover set in center of floor, the impossibility of the chicks to bunch-up apart from the brooder and perish from suffocation or cold, is readily apparent. Nor can the larger chicks crowd each other, or the weaker members of the brood, with attendant sweating, resultant colds and catarrhal troubles. Veteran poultrymen, who have experienced severe losses from such causes when brooding baby chicks in a square room or house, are strong in their praise of the Unadilla Cornerless House and affirm the assertion that it is unequalled for brooder purposes and a big aid in reducing mortality to the lowest possible degree. In every instance of purchase for use in brooding small chicks, the Cornerless House has demonstrated its worth as a small chick life saver. The same satisfaction is experienced when it is used to shelter laying hens.

A pamphlet descriptive of the Unadilla Cornerless House, listing the sizes and quoting prices, will be mailed to any applicant.



For stable floor construction there is nothing better or less expensive to use than Unadipt Wood Blocks, made from air-seasoned Canadian Spruce and Oregon Fir lumber and immersed in steaming hot creosote oil for a sufficient length of time to thoroughly impregnate them with the preservative, which possesses both antiseptic and toxic properties.

This treatment renders the blocks resistant to decay, impervious to water and acids, and destructive to insects of all kinds and such bacteria or germ life as infest stables and are the cause of the infectious diseases so common to live stock.

A floor made of Unadipt Wood Blocks can be laid rapidly, even over old concrete floors, and a creditable job produced by a person unskilled at such work, and when sealed with coal tar pitch, poured in hot between the spaces at sides and ends of blocks, it is far and away ahead of concrete for durability, besides being non-slipping, warm and more satisfactory in every way. Additional information respecting them is given in a special pamphlet, which will be mailed promptly to anyone making the request. Write for price quotations.

Baled Shavings for Bedding

The planer shavings from lumber dressed in the manufacture of Unadilla Silos make a sanitary bedding for all live stock. Being highly absorbent of liquid manure, they are readily transformed into a valuable fertilizer. They are tightly pressed into bales weighing from 85 to 100 pounds each and are sold by the carload. If you cannot handle the quantity of a carload, perhaps one or more of your neighbors could be readily interested in sharing a shipment with you.

It Pays in Many Ways to Own Your Own Ensilage Cutting Equipment

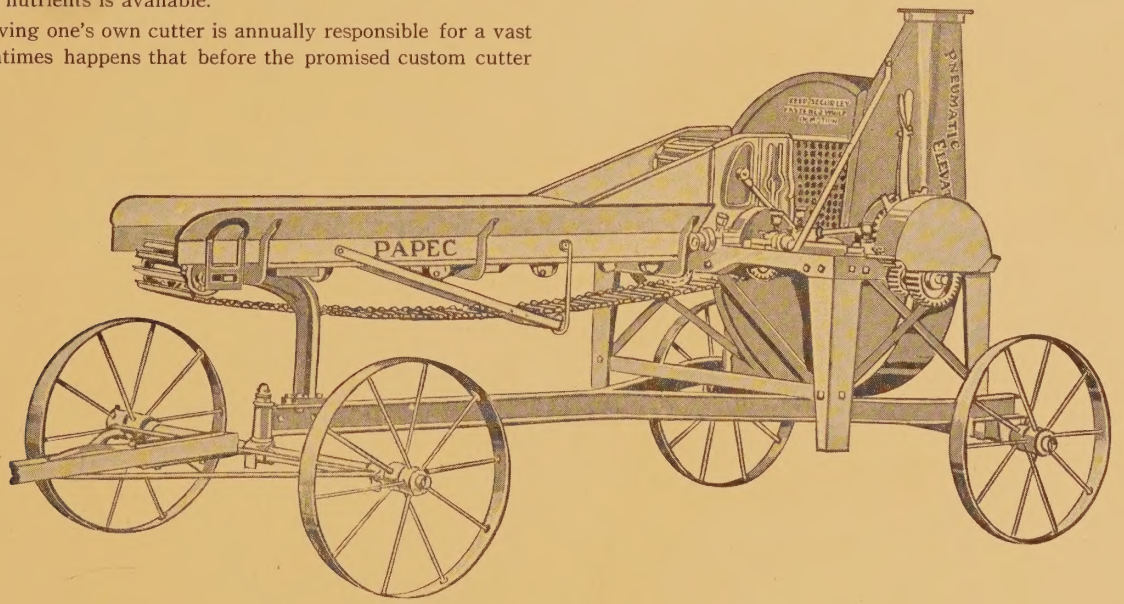
With the installation of a Silo, or a battery of them, it naturally follows that, sooner or later, a dependable Ensilage Cutter will be purchased as companion equipment.

Each succeeding season witnesses more and more farmers "seeing the light" and becoming owners of their own silage cutting equipment, the means by which is gained the big advantage of being able to get the crop into the Silo at that stage of its maturity when the largest amount of food nutrients is available.

Lack of having one's own cutter is annually responsible for a vast loss, for it oftentimes happens that before the promised custom cutter appears on the scene the crop has over-matured and gone backward, or been nipped by sudden, early frost, enough to make the resultant damage equivalent to a good part of the first cost of a personally owned ensilage cutter—and independence.

This Company are sales agents, in non-conflicting territory, for two of the very best Ensilage Cutters that the market affords—the Wonderful Papec Pneumatic, of which the illustration shows the latest improved type, a truly wonderful machine, and the Safety Automatic Rowell-Trojan line of Cutters.

Both machines are as reliable as human ingenuity has yet devised and the Papec or Rowell-Trojan owner can set up his cutter, throw on the power, and confidently expect the work of filling to progress steadily until the silage overflows at the roof opening. Both cutters have their distinctive features and both are safe bets on the guarantees of their manufacturers.



Profusely illustrated catalogs describing the salient features of the Papec Pneumatic and Safety Automatic Rowell-Trojan Cutters will be sent on request. Just state your desire on a postal and address it to

THE UNADILLA SILO COMPANY, INC., SALES AGENTS, UNADILLA, N. Y.

This catalog, in its entirety, is a product of the printing department of the Unadilla Silo Company—1925

AVERY LIBRARY
COLUMBIA UNIVERSITY

AT
7305
Unl
1925